

Appendix F - North Region Office Engineer Project Specific Quality Control Plan

NROE's primary role in the North Region Quality Management Plan is to assist the PE with preparation of a project ready for advertisement that conforms to Caltrans policies, directives, and standards. We work together with PEs and the functional units to develop PS&Es that conform to Caltrans standards and are biddable. NROE is responsible for reviewing project plans and checking for their conformance with DES OE submittal standards, Plans Preparation Manual (PPM) requirements, developing standard specifications for contracts, assisting in the development of non-standard specifications, and reviewing project BEES estimates. Additionally, NROE provides Draft and Final PS&E peer review of project specifications developed for the contract documents. NROE checks that the PS&E deliverables required by the RTL Guide and RTL Certification Form are complete and achieve Office Engineer submittal standards.

Implementation of this Specific QMP requires additional PY resources for both RTL Guide, Service Level 1 and especially Service Level 2 projects. North Region Project Management needs to resource Service Level 2 in time for resources to be available at the Initiate NROE activity if this level of service is desired. Traditionally, DES OE has been resourced to work on RTL Guide, Service Level 1 projects after NROE District PS&Es projects. With this QMP and NROE processing RTL Guide, Service Level 2, the resources previously "work planned" need to be transferred to NROE. Please refer to the attached DES OE "Workload and Duration Estimating Tables for WBS Activities 260 and 265." All the hours in Activity 260, Cost Center 285, 59-OE01, and Activity 265, Cost Center 286, 59-OE02, and 291, 59-OE06 need to be transferred to NROE for RTL Guide, Service Level 2, processing of projects. In addition to these resources, supplemental work plan hours are needed since the QMP requires increased NROE participation in the project development process.

Intermediate PDT Checkpoints

NROE is an integral part of the PDT. We participate in applicable PDT meetings. NROE is responsible for developing consensus on the best way to specify and pay for items of work in the contract documents. We work collaboratively and as an intermediary between the project specification owners, DES OE and members of the PDT. NROE coordinates non-standard specification approval.

CADD Manual and PPM standards reflect the importance of proper MicroStation project setup during the initial design phase of a project. Proper project setup facilitates work transfer between functional units and results in consistency between the various sections of the project plans. The initial clipping of project plan sheets on horizontal alignments, associated reference files, and details should be checked by Drafting Services prior to Design's transfer of plan sheets to PDT functional units for their use in the development of additional project plan sheets.

Initiate NROE

After functional unit delivery of individual PS&Es to Design, Design checks the deliverables for compatibility, resolves conflicts with the roadway PS&E, and requests **Initiate NROE**. RTL Guide Service Level processing of the project is revisited and verified by Design, Project Management and NROE. Using the North Region PS&E Submittal Guide Design provides necessary information and deliverables to **Initiate NROE**.

NROE along with the PE checks the Draft Project P&E submittal for completeness with DES OE's RTL Guide. Information required by process, policy and directive is checked and verified. Complete Draft Project P&E submittals are assigned to a Specification Engineer/Technician for RTL processing.

Project plan MicroStation files are transferred to Drafting Services. At **Initiate NROE** Draft Plans are checked for CADD Manual and PPM standards. When the plans conform to standards they are copied into Drafting directories. If the plans do not meet standards a plan is developed by the PDT to resolve the problems. From **Initiate NROE** milestone onward changes to the project plan sheets are managed by Drafting Services either by redlines or resubmitted sheets.

The project BEES is reviewed and updated if necessary. Project specifications are pulled based upon BEES items. Functional unit and Structures PS&E's are combined with Roadway. NROE reviews the complete Draft PS&E and makes comments on inconsistencies and discrepancies to the PE for resolution prior to District circulation. After resolution of comments, NROE Peer Review of the Draft BEES and specifications package are performed. NROE Peer Review comments are resolved prior to Draft PS&E Circulation.

Because NROE is responsible for reviewing project plans, specifications, and estimates for conformance with relevant Departmental standards, deviations from PS&E standards will be elevated to the North Region Office Engineer. The North Region Office Engineer will prepare a fact sheet and present the issue to the Office Engineering Services Chief for resolution with the appropriate North Region Design Office Chief. If agreement cannot be reached between Design and Engineering Services Office Chief's, the Division of Design and Engineering Services Manager will resolve the issue prior to Draft PS&E Circulation.

Draft PS&E Circulation

During District **Draft PS&E Circulation**, NROE performs a detailed PPM review of the plans and checks plan sheet quantities with BEES. NROE is available to participate in any functional unit review of the Draft PS&E. We attend the Constructability Review meeting. NROE collects the comments from **Draft PS&E Circulation**, reviews the comments, forwards them to the PE and works collaboratively with the PDT for comment resolution. During this time NROE puts together the Project Informational Handout.

Final PS&E Circulation

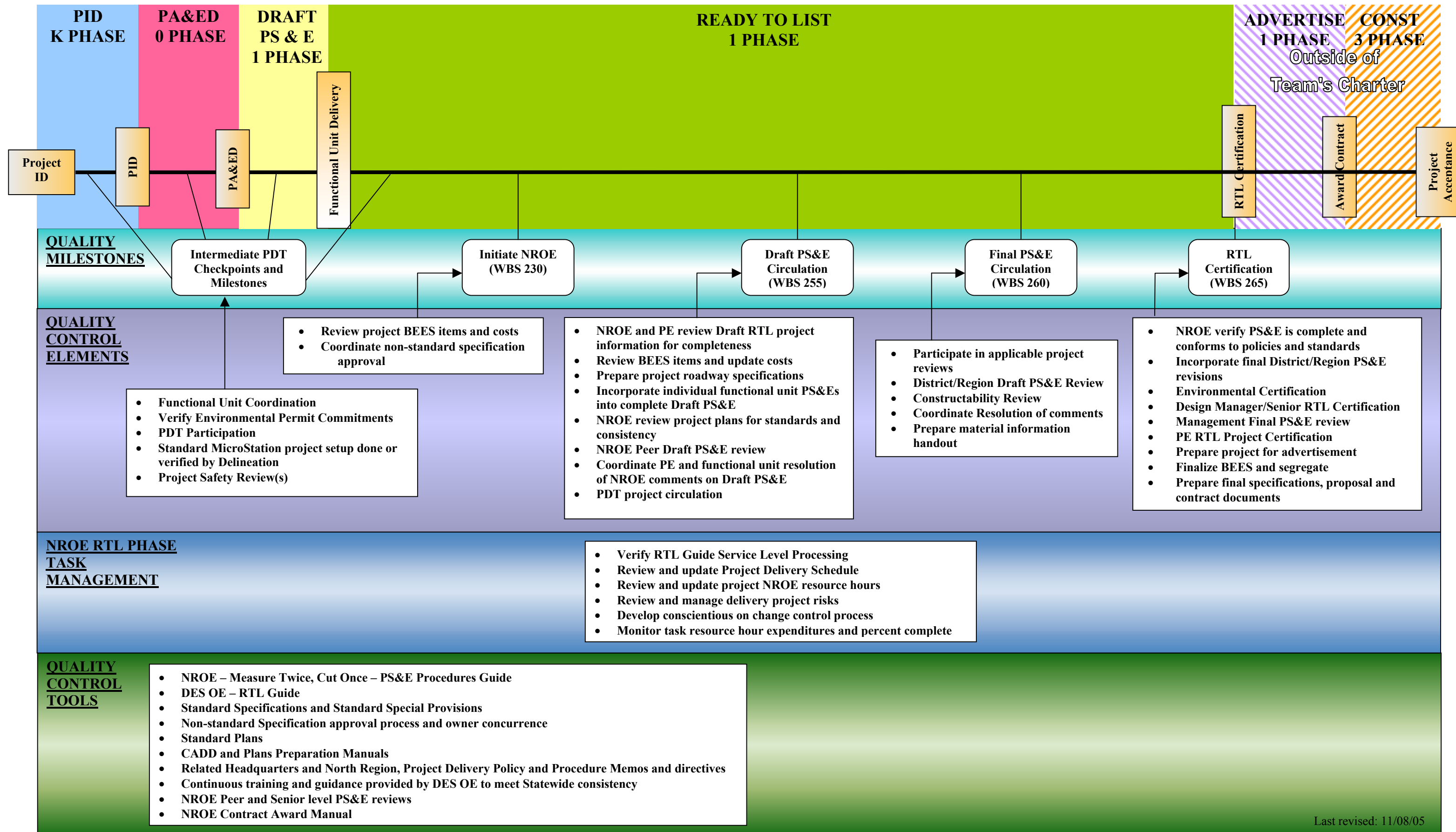
NROE verifies that the **Final PS&E** is complete and conforms to policies and standards. A second NROE Peer Review of the PS&E is performed. Final District revisions are incorporated into the PS&E. When the **Final PS&E** is complete, Environmental Certification of the package is requested. Additionally, the PS&E is circulated for Management Review. The Design Manager/Senior reviews the **Final PS&E** and when appropriate signs the RTL Certification form. When satisfied that the project is RTL, the PE signs the RTL Certification Form. At this point the Project is PS&E Ready/RTL.

RTL Certification

After **Final PS&E Circulation** and **RTL Certification**, NROE inputs RTL Certification Form data in the DES OE database. Drafting Services prepares the RTL Guide CADD Submittal. The final BEES is prepared reflecting local funding and/or cooperative agreement segregations. The final specifications, boiler plate language, and proposal are created for the contract documents. The Project Manger prepares and delivers the project funds request. If appropriate the project is placed on the CTC agenda for a funding vote. Delegated Maintenance projects go directly to listing and advertisement.

NORTH REGION QUALITY MANAGEMENT PLAN

-Office Engineer Project Specific Quality Control Plan-



Workload and Duration Estimating Tables for WBS Activities 260 and 265

Division of Engineering Services - Office Engineer

DURATIONS	Activity 260				RTL (Ready to List)	Activity 265		Version: 11-21-02
	Standard		Qualified					
Project Type or Cost	Weeks	Days	Weeks	Days		Weeks	Days	
AADD *	-	-	0	0		16	112	
<\$1 Million	8	56	1	7		16	112	
\$1-5 Million	10	70	2	14		16	112	
\$5-25 Million	14	98	7	49		18	126	
>\$25 Million	16	112	-	-		20	140	

RESOURCES	Activity 100.15	Activity 260		RTL (Ready to List)	Activity 265				
COST CENTER, RBS CODES	291, 59-OE03	285, 59-OE01	TOTAL		285, 59-OE01	286, 59-OE02	291, 59-OE03	302, 59-OE06	TOTAL
Project Type or Cost	Hours	Hours	Hours		Hours	Hours	Hours	Hours	Hours
AADD*	19	0	19		8	55	38	17	118
Qualified Minor A or Qualified Maintenance	19	48	67		8	55	38	17	118
<\$1 Million	19	72	91		8	55	38	17	118
\$1-5 Million	22	166	188		18	62	43	48	171
\$5-25 Million	26	295	321		33	70	51	102	256
>\$25 Million	35	838	873		93	84	69	275	521

Notes:

Cost Center 285	Preparation of Draft Contract Documents and Addenda by Specification Engineers. PS&E Office
Cost Center 286	Contract Awards, Bidder Goals, Protests, Services, and Support
Cost Center 291	Project Scheduling, Contract Plans Counter, Bid Book Unit, Addenda, Docutech, Project Management Support
Cost Center 302	Project Plans Unit

* AADD = Authority to Advertise District Delegation Process

Please refer all questions to Hoosh Mehrshahi, DES-OE, (916) 227-6224, CALNET 8-498-6224.

11/21/2002